

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. - 15. (canceled)

16. (Presently amended) A method of diagnosing a risk of developing insulin resistance comprising determining the level of a human Mal1 transcript in a tissue sample, wherein an increase of at least 5% in the level of said transcript in said tissue compared to a normal control tissue indicates that said human is at risk of developing insulin resistance, wherein said human Mal 1 transcript comprises ~~at least 10 nucleotides of~~ SEQ ID NO:4 or the complement thereof.

17. -21. (canceled)

22. (Previously amended) The method of claim 16, wherein said increase is 10% more than a normal control value.

23. (Previously amended) The method of claim 16, wherein said increase is 20% more than a normal control value.

24. (Previously amended) The method of claim 16, wherein said increase is 50% more than a normal control value.

25. - 26. (canceled)

27. (Presently amended) ~~The method of claim 25~~ A method of diagnosing a risk of developing insulin resistance comprising determining the level of a human Mal1 transcript in a tissue sample, wherein an increase of at least 5% in the level of said transcript in said tissue compared to a normal control tissue indicates that said human is at risk of developing insulin resistance, wherein said human Mal1 transcript comprises nucleotides 49-456 of SEQ ID NO: 4 or the complement thereof.

28. -30. (canceled)

31. (previously presented) A method of diagnosing a risk of developing insulin resistance comprising determining the level of a human Mal1 polypeptide in a tissue sample, wherein an increase of at least 5% in the level of said polypeptide in said tissue compared to a normal control tissue indicates that said human is at risk of developing insulin resistance, wherein said human Mal1 polypeptide comprises the amino acid sequence of SEQ ID NO:3.

32. (previously presented) The method of claim 31, wherein said increase is 10% more than a normal control value.

33. (previously presented) The method of claim 31, wherein said increase is 20% more than a normal control value.

34. (previously presented) The method of claim 31, wherein said increase is 50% more than a normal control value.

35. (presently presented) A method of diagnosing a risk of developing insulin resistance comprising determining the level of a mouse Mal1 transcript in a tissue sample, wherein an increase of at least 5% in the level of said transcript in said tissue compared to a normal control tissue indicates that said mouse is at risk of developing insulin resistance, wherein said mouse Mal1 transcript comprises ~~at least 10 nucleotides of~~ SEQ ID NO:2 or the complement thereof

36. (previously presented) A method of diagnosing a risk of developing insulin resistance comprising determining the level of a mouse Mal1 polypeptide in a tissue sample, wherein an increase of at least 5% in the level of said polypeptide in said tissue compared to a normal control tissue indicates that said mouse is at risk of developing insulin resistance, wherein said mouse Mal1 polypeptide comprises the amino acid sequence of SEQ ID NO:1.